



Lumbar Microdiscectomy

Minimally invasive microscopic or endoscopic surgery for sciatica

Why you have been given this sheet

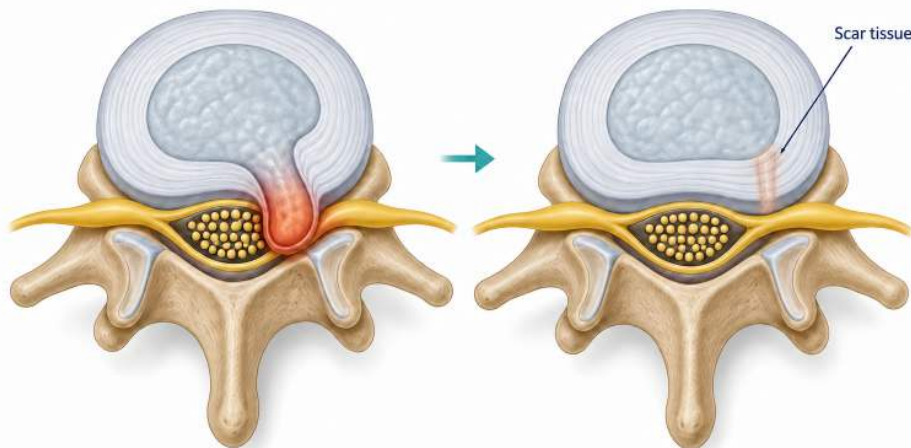
This guide explains lumbar disc herniation, when microdiscectomy may be recommended, how minimally invasive microscopic and endoscopic techniques are performed, and the usual recovery. It supports your discussion with the surgical team and complements—but does not replace—the formal consent process.

What is a lumbar disc herniation?

The discs between the vertebrae act as cushions. A herniation occurs when disc material pushes through the outer layer and presses on a nearby nerve root. This can cause sciatica: sharp or burning pain from the lower back or buttock into the leg, sometimes with tingling, numbness or muscle weakness.

BEFORE — NERVE COMPRESSED

AFTER — NERVE RELEASED



A targeted operation removes the loose fragment pressing on the nerve while preserving as much healthy disc as possible. Scar tissue forms during healing; the illustration shows a later postoperative appearance.

When is surgery considered?

- Sciatica (leg pain) that matches the MRI findings and remains disabling after an appropriate trial of conservative treatment—commonly around 6 weeks.
- Severe pain that cannot be controlled adequately despite medication and appropriate care.
- New or significant muscle weakness caused by nerve compression.
- Urgent symptoms such as bladder or bowel dysfunction or numbness around the saddle area require immediate assessment.

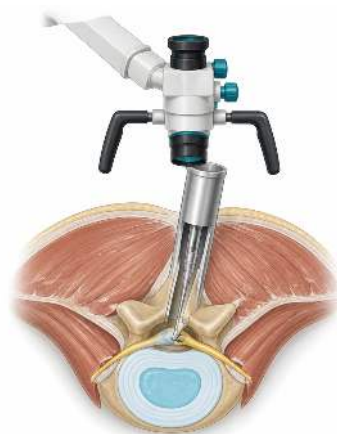
The principal aim

Microdiscectomy is designed to release the compressed nerve and usually produces very rapid—often immediate—relief of the leg pain. More than 9 in 10 appropriately selected patients experience substantial improvement. Recovery of weakness or numbness is less predictable and depends largely on how severely and for how long the nerve was compressed.

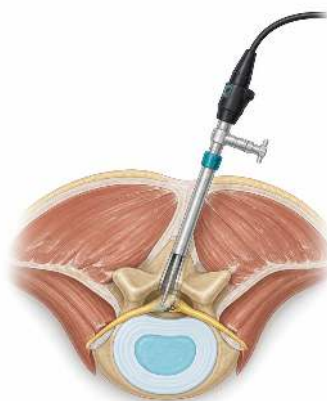
Two minimally invasive approaches

The approach is selected according to the anatomy, size and location of the disc herniation.

MICROSCOPIC MICRODISCECTOMY



ENDOSCOPIC DISCECTOMY



Both techniques use a small working corridor through the back muscles. The illustration is simplified; the exact approach varies with the level and position of the fragment.

MINIMALLY INVASIVE MICROSCOPIC

Through an incision of approximately 1–2 cm, a narrow tubular retractor gently separates the muscle fibres. A surgical microscope provides bright magnification and a precise view of the nerve. Fine instruments remove the compressing fragment while preserving normal structures.

ENDOSCOPIC

A small camera and narrow working cannula reach the disc through a similarly small incision. The surgeon views the nerve and disc on a high-definition screen and removes the fragment with specialised instruments.

In either approach, no screws, rods, cage or other metal implant is normally required. The operation usually takes approximately 30–60 minutes under general anaesthesia.

Why use a minimally invasive approach?

Preserves muscle The working channel passes between muscle fibres and minimises stripping from the spine.

Less surgical disruption The small incision and targeted exposure generally mean limited blood loss and less postoperative wound pain.

Earlier mobility Patients usually stand and walk on the day of surgery and may return home the same day when comfortable and medically ready.

Faster recovery Normal daily activity can resume progressively while heavy work is delayed until the tissues have healed.

Your recovery guide

Same day Walk shortly after surgery. Go home the same day if pain, mobility and bladder function are satisfactory; otherwise, an overnight stay may be arranged.

First 2 weeks Walk little and often and perform light daily activities within comfort. Wound review is usually at about 2 weeks. No brace is routinely required.

Driving Usually after 1–2 weeks, once you are off sedating medication and can safely control the vehicle and perform an emergency stop.

Around 6 weeks Surgeon review. Physical work, lifting and more demanding exercise usually resume progressively from around 6 weeks, according to recovery and individual advice.

Expected results, problems and alternatives

What improvement should you expect?

Leg pain caused by a clearly compressed nerve commonly improves immediately or very soon after surgery. Back discomfort from the small incision and muscle corridor is expected for a short period. Numbness and weakness often recover more slowly over weeks or months, and recovery may be incomplete if the nerve was already significantly injured before surgery. The operation removes the offending fragment; it does not replace the disc or reverse all pre-existing disc degeneration.

A recurrence is possible

A further fragment can occasionally herniate from the disc that remains. Contemporary studies generally report recurrent herniation or reoperation in roughly 4–10% of patients, depending on follow-up and definitions. Recurrence does not necessarily mean the first operation was performed incorrectly; it may represent new material escaping through the existing defect.

Possible problems

Complications are uncommon, and most patients recover without a major problem. Possible issues include temporary wound pain, residual tingling or numbness, nausea, constipation or urinary difficulty. Less commonly, there may be infection, bleeding or haematoma, spinal-fluid leak from a dural tear, nerve irritation or injury, persistent or recurrent sciatica, recurrent disc herniation, blood clot, or the need for further surgery.

Seek urgent medical attention

Contact the surgical team promptly for increasing wound redness, swelling, discharge, fever, uncontrolled pain, or new weakness. Call emergency services or attend the nearest emergency department for new loss of bladder or bowel control, saddle-area numbness, major progressive weakness, chest pain or shortness of breath.

Alternatives to surgery

- Continued observation when pain is manageable and there is no progressive neurological deficit; some herniated fragments reduce naturally over time.
- Medication, activity modification and a structured physiotherapy or exercise program.
- An epidural or selective nerve-root injection for temporary symptom control in selected patients.

Non-operative care is appropriate for many patients early in the course. Surgery is generally considered when symptoms remain substantially limiting after around 6 weeks, or sooner when pain is extreme or weakness is significant or progressive. Randomised trials show that early surgery provides faster relief of sciatica, although longer-term outcomes are similar to those of patients who can safely continue conservative care.

Your surgeon

Dr David Edis | Orthopaedic and Spine Surgeon | MBBS, FAOrthA, GradDipHealthAdmin

David leads the spinal surgical team and has particular expertise in minimally invasive microscopic and endoscopic spine surgery. He selects the least disruptive approach that safely reaches the fragment, releases the nerve and preserves healthy muscle, bone and disc whenever possible.

Selected references

1. Peul WC, et al. Prolonged conservative care versus early surgery in patients with sciatica caused by lumbar disc herniation: two-year results of a randomised controlled trial. *BMJ*. 2008;336:1355–1358.
2. Gadjradj PS, et al. Full endoscopic versus open discectomy for sciatica: randomised controlled non-inferiority trial. *BMJ*. 2022;376:e065846.
3. Overvest GM, et al. Tubular discectomy versus conventional microdiscectomy for lumbar disc herniation: long-term results of a randomised controlled trial. *J Neurol Neurosurg Psychiatry*. 2017;88:1008–1016.
4. Arts MP, et al. Tubular discectomy versus conventional microdiscectomy: two-year results of a double-blind randomised controlled trial. *Neurosurgery*. 2011;69:135–144.
5. Park SM, et al. Biportal endoscopic versus microscopic discectomy for lumbar herniated disc: a randomized controlled trial. *Spine J*. 2023;23:18–26.
6. Binos S, et al. Complications associated with lumbar discectomy surgical techniques: a systematic review. *J Spine Surg*. 2022;8:377–389.
7. Zhang T, et al. Tubular microdiscectomy versus conventional microdiscectomy for lumbar disc herniation: systematic review and meta-analysis of randomised trials. *J Orthop Surg Res*. 2023;18:479.
8. Aiyer R, et al. Full endoscopic versus micro-endoscopic or open discectomy for lumbar disc herniation: a systematic review. *Pain Manag*. 2022;12:87–104.
9. Zou T, et al. Incidence of spontaneous resorption of lumbar disc herniation: a meta-analysis. *Clin Spine Surg*. 2024;37:256–269.

Victorian Orthopaedic Spine Service

☎ 03 8683 9039 | Fax 03 8679 0389
✉ reception@vicorthospine.com.au

Consulting locations

Langwarrin Main Rooms • Mulgrave
Maryvale • Warragul • Peninsula • Rosebud

Surgical hospitals

Peninsula Private Hospital
Mulgrave Private Hospital
Maryvale Private Hospital
The Bays Hospital